

ON LAKE MICHIGAN



Summer 1998

Early March Storms Hit Lake Michigan Shoreline

An onslaught of snow, ice, and wind between March 9 and March 12 closed roads, stranded motorists, and knocked out power to at least 138,000 customers in LaPorte, Lake, Porter, and Jasper counties. Storm damage occurred across the length of Indiana's 45 miles of shoreline, from Hammond near Illinois to Long Beach near Michigan. Winds generated waves with heights estimated to be 10 to 12 feet high on the low end, with some estimates as high as 16 to 20 feet.

The constant wind blowing down the 300 mile length of Lake Michigan not only generated large waves, but also resulted in a wind-induced rise in water level of approximately 3.5 feet on Indiana's coast, according to the lake level gage at Calumet Harbor, Illinois. The combined effect of a lack of protective shore ice, and the wind-induced increase in water level, allowed the winter storm waves to reach higher up the beach, to the base of highly erodible dune-bluffs. Waves also overtopped and eroded around man made coastal structures designed to protect against typical winter storm conditions.

Dayton Vincent, professor of atmospheric science at Purdue University, saw the early March storms as an indication of the warm Pacific pool, which caused El Niño, was beginning to cool. Much of the Great Lakes experienced a mild winter this year, commonly attributed to the influence of El Niño. But the warmer temperatures meant little ice cover on southern Lake Michigan and the greater potential for shoreline erosion due to high waves. Shore ice normally acts as a protective buffer for the erodible beaches, dune-bluffs, and man made structures such as seawalls and marinas.

Near the Illinois state line, the Hammond Marina suffered some minor damage to its floating dock system, and the Empress gaming boat had to close for a short period until a construction barge which broke free of its moorings

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could be re-secured. The Whihala Beach county park in Whiting suffered major beach erosion at the east end of their park, exposing normally buried gabion baskets designed to protect a concrete wall, the parking lot, and beach house facility. But at the west end of the park, near the Hammond water filtration plant, the beach widened after the storm.

In East Chicago, a new permanent breakwater was recently added. The

Plans are being developed to install rock revetment. Adjacent homes which have sheet steel walls may now receive added protection to the toe of the walls. At the east end of Ogden Dunes, one home's slag revetment failed causing the dune behind it to erode. A new sheet steel wall has been constructed.

East of Ogden Dunes is shoreline owned by the Indiana Dunes National Lakeshore. This shoreline appears to

a piece of steel from the edge of the docking facility. Fuel oil released from the tug was contained and recovered inside the port.

In the town of Porter (at Porter Beach), parking lots at the end of Wabash Avenue were damaged or lost. The end of Dearborn Avenue was undermined and dropped down five feet to the eroded beach. East of Porter Beach one of two houses owned by the Indiana Dunes National Lakeshore and located at beach level, lost its porch when waves washed up and around it.

Lake Michigan claimed two houses in the March storm: one in Beverly Shores, and the other across the Michigan state line in New Buffalo. After the storm, two other homes along the lakefront of Beverly Shores were compromised by erosion and scheduled for demolition. The Corps of Engineers received \$1.7 million dollars in 1997 to perform repair and maintenance on the 13,000 foot rock revetment that protects the Beverly Shores shoreline. The maintenance plan developed last year is now being revised due to the March 9 storm.

The Michigan City Washington Park Marina north breakwater was severely damaged by waves overtopping the structure and eroding the support on the basin side of the wall. The Corps of Engineers and the city worked together to repair the damage and restore the effectiveness of the structure as a breakwater. There was no direct breach of the wall between the basin and Lake Michigan.

One home in Long Beach sustained damage due to erosion on an adjacent, unprotected piece of property. Erosion occurred around the end of the existing sheet steel wall, undermining the floor of the garage and allowing the concrete slab to drop into the family room below it. In addition to the damaged home, several other homeowners in Long Beach are requesting to construct or improve existing erosion protection structures.



Lake Michigan claims Beverly Shores house. "Courtesy of Joe Raymond, South Bend Tribune, March 12, 1998."

breakwater protects the Showboat Casino gaming facility, surrounding the existing Pastrick Marina. No problems or damage were reported here. These facilities are sheltered from north storm waves by the Indiana Harbor structure which extends into Lake Michigan from Indiana's shoreline. The Buffington Harbor facilities in Gary contain the Trump and Majestic Star gaming boats. This harbor is exposed to direct north storm waves. The March 9 storm resulted in approximately 72 hours of gaming interruption.

The west end of Ogden Dunes suffered considerable erosion damage when 30 feet of dune-bluff was lost in an area where homes had no erosion protection.

have eroded about 25 feet. The March 9 storm eroded the dune face far enough to create a breach through the dune, sending waves over the beach into a interdunal lowland area previously separated from the lake by the narrow dune ridge. There is only a low beach now separating Lake Michigan from the low area.

The Port of Indiana in Portage suffered the greatest structural damage at the DNR Public Fishing Access Facility. Waves which entered the harbor entrance overtopped the rock revetment, ripped up the asphalt parking lot, and severely undermined the concrete fishing platform. Wave activity within the harbor arms resulted in nine barges being sunk. One tug boat also sank, but not before ripping

Responding to the regional crisis caused inland by the storms, the Indiana National Guard sent more than 130 troops plus helicopters, buses, wreckers, tankers, ambulances, HUMVEEs, and other equipment. The Guard opened ten armories as shelters. To clear the ice and snow, the Indiana Department of Transportation deployed 250 employees from as far away as Terre Haute and Indianapolis. The Red Cross coordinated activities at 62 shelters. The Indiana State Police and the Department of Natural Resources assisted local emergency agencies in rescuing stranded persons.

The State Emergency Management Agency (SEMA) helped coordinate the state's response to the severe weather then estimated the costs. The preliminary assessment showed that state government, local governments, and not-for-profit agencies incurred expenses fighting the storm of more than \$4.1 million. In April, Governor Frank O'Bannon sought federal disaster relief to help address these costs. On May 8, President Clinton granted the request. O'Bannon expressed his appreciation for the grant and reflected, "Snow storms are not unusual in Northwest Indiana, but these storms caused more damage and hardship" in the region than any other storms "in many years."

ANCIENT SHIPWRECKS

Part I: The Abandoned Shipwreck Act and the *Brother Jonathan*

Following is the first of a three-part series outlining the protection of ancient shipwrecks in Indiana, most notably those buried in the sands of Lake Michigan. The first article reviews the federal Abandoned Shipwreck Act of 1987 and an important decision by the U.S. Supreme Court this spring which helps interpret the Act. The second article will appear in the fall issue of *SHORELINES* and discuss efforts made to locate and protect shipwrecks in the Indiana waters of Lake Michigan. The third article will appear in the winter issue and look at the future of this piece of Great Lakes Americana.

The United States Congress enacted the "Abandoned Shipwreck Act of 1987" (sometimes called the "ASA") to transfer control of qualified historic shipwrecks located in navigable waters to the states. The ASA provides in 43 USC 2105 that the "United States asserts title to any abandoned shipwreck either: "embedded in submerged lands of the State" or "on submerged lands of a State" and "included in or determined eligible for inclusion in the National Register."

This statutory section then transfers the title of the United States "to the State in or on whose submerged lands the shipwreck is located." In Indiana, the ASA has its most obvious application to ships which were sunk in the waters of Lake Michigan, but the law also applies to ships found in or on the beds of other navigable waters.

In 1989, the National Park Service adopted guidelines to help implement the ASA. According to the guidelines, "The Act and the legislative history clearly indicates that the Congress intends to encourage the State to manage abandoned shipwrecks in the State waters in a manner that reflects the diverse values and multiple uses of shipwrecks." Notable are archeological values and uses, including scientific study of a shipwreck site to learn about past human behavior; historical values which include the qualities making a site eligible for listing on the National Register of Historic Places; memorial values that include vessels wrecked with the loss of life; and recreational val-

ues, such as scuba diving, snorkeling, and underwater photography.

In April of this year, the United States Supreme Court issued an important decision for the application of the Abandoned Shipwreck Act in *California, et al. v. Deep Sea Research, Inc., et al.* (No. 96-1400). At issue was title and authority over the *Brother Jonathan*, a 220-foot, wood-hulled, double sidewheeled steamship that struck a submerged rock in 1865 during a Pacific voyage between San Francisco and Vancouver. The ship sank in less than an hour, with the loss of most of the ship's passengers and crew. The ship also carried an estimated \$2 million in gold and a U.S. Army payroll estimated at \$250,000. Shortly after the disaster, five insurance companies paid claims to-

taling about \$50,000 for the loss of some of the ship's cargo.

Deep Sea Research purchased the cargo salvage rights from some of the insurance companies, and using newly developed underwater search technologies, in 1994 found the ship in California territorial waters. Deep Sea Research filed an admiralty suit in

a U.S. District Court seeking to assert rights to the shipwreck. The State of California entered the case and contested the jurisdiction of the federal court, asserting state protection from federal court actions under the Eleventh Amendment to the U.S. Constitution. California also claimed title to the *Brother Jonathan* shipwreck, both under the ASA and California state law. Deep Sea Research argued Article II, §2 of the U.S. Constitution placed exclusive admiralty jurisdiction over shipwrecks in the federal



courts, and it urged the ASA transfer of authority over abandoned shipwrecks violated that constitutional pronouncement. The lower federal courts ruled with Deep Sea Research, finding the Eleventh Amendment inapplicable and that the California state law governing ancient shipwrecks was superseded by the ASA.

On appeal, the U.S. Supreme Court decided the Eleventh Amendment did not provide California with immunity from federal suit to decide shipwreck ownership. The Supreme Court noted Deep Sea Research located the shipwreck and that California did not previously know the location of the wreck or have possession over it. A distinction was made between an “actual possession” and a “mere constructive possession” which might arise from a legal claim to all property on the state’s territorial waters. The Court also ruled admiralty law determined a ship was “abandoned” when title to a vessel had been renounced or when circumstances gave rise to an inference of abandonment, and the concept of abandonment as developed under admiralty law was found to control the ASA.

The U.S. Supreme Court ultimately sent the case back to the Court of Appeals to determine whether the *Brother Jonathan* had been “abandoned” under admiralty law. The Court did not decide whether California state law was superseded by the Abandoned Shipwreck Act. “Because the District Court’s full consideration of the application of the ASA on remand might negate the need to address the pre-emption issue, we decline to undertake that analysis.”

Lake County Convention and Visitors Bureau to Begin Work on Information Center

Work is about to begin on the Interstate Visitors Center to be located at the Kennedy Avenue exit from Interstate 80 and 94. According to James Zaleski, Vice President for Communications at the Bureau, “Construction work is expected to begin this summer. We’re really excited about the Center and how it will help let visitors know about things to do in Northwest Indiana.”

Last October, a groundbreaking ceremony was held for the Center. During the ceremony, Indiana Lt. Governor, Joseph E. Kernan, praised what is expected

Dunes, Lake County’s industrial and agricultural heritage, and the Kankakee River.

The northern portion of the building will house 6,000 square feet of exhibition space and is crowned with stainless steel and blue glass. The southern portion will house bureau offices. In addition, there will be a 2,000 square foot museum, a 120-seat theater, a gift shop, rest room facilities, and traveler information and services.

When completed, the Center will provide information for as many as 1,000 travelers daily. Studies have shown similar facilities providing as much as \$6.5 million of economic impact to surround-



to be more than a \$5 million facility. He noted that, “tourism is big business” in Indiana. Hammond Mayor, Duane W. Dedelow, Jr., stressed the need to promote Lake County as a destination, taking full advantage of what the region has to offer. The Center will be located on 1.75 acres of land donated by Whiteco Industries

ing communities through increased visitor spending.

Lake Michigan Recreation and Access Guide

The DNR Division of Outdoor Recreation recently completed an inventory and assessment of recreational facilities and needs in the Lake Michigan watershed of Lake, Porter, and LaPorte Counties. The study, prompted in part by the Northwest Indiana Public Work Groups of 1995 and a resolution by the Lake Michigan Marina Development Commis-

What's on Shore next :

Shipwrecks - Part 2

sion, is now available as a guidebook complete with maps indicating locations of recreation sites and the activities available at the sites.

Federal funding was provided to the Division through the Lake Michigan Coastal Coordination Program's coastal management grant from the U.S. Department of Commerce, National Oceanic Atmospheric Administration, to assess recreation along the shoreline through focus groups and user surveys. Jodi Dickey, organizer of the study for the Division of Outdoor Recreation, said the development of the recreation guide was a "good cooperative venture between the public, local recreational providers, and DNR." She hoped this effort would be an example of "better customer service" when it comes to providing recreation. "Recreational sites," she said, "are too often looked at as numbers of acres, and not viewed often enough from the perspective of the user regarding location and types of facilities."

The inventory of recreation sites identified 526 recreation sites in Lake County, and 128 sites in Porter County. Although the entire area of LaPorte County has not yet been inventoried, the northern portion of LaPorte County, including Michigan City and LaPorte, has 74 recreation sites. The guidebook includes maps of the recreation sites which are ten acres or more in size, and are closest to the lakeshore.

Five focus group meetings were held in 1996 in Northwest Indiana. The five groups encompassed private recreation providers; public recreation providers; user groups; elected officials; and business and industry. Generally those participating in the focus groups identified a lack of adequate access to the lakeshore as a concern. Several additional common themes were apparent throughout the groups including (1) inadequate information about access to the lakeshore and associate facilities; (2) government inflexibility toward user needs; and (3) the need for increased cooperation and coordination of planning efforts between the differing entities along the shoreline.

To gather a clear idea of how people are using the lakeshore, a survey was conducted during July 1997 on weekdays, evenings, weekends, and the Fourth of July holiday. The survey was administered at six sites: Indiana Dunes National Lakeshore West Beach Unit; Portage Public Marina; Whihala Beach County Park; Washington Park Beach; Washington Park Marina; and Hammond Marina.

The majority of the questions sought to determine what people actually did when they went to the lakeshore to play. Respondents were asked if they had trouble accessing the shoreline, and what additional facilities might be needed. Finally, they were asked what was most important to them. The top three activities identified by the survey results are: (1) swimming (46%); (2) power boating (40%); and (3) picnicking (18%). Nature observation, hiking or walking, and boat fishing were other activities that more than 10% of respondents indicated doing. When asked if additional facilities were needed on Lake Michigan, 68% responded "no, the current facilities are okay." Cross referencing each survey site to a particular activity showed respondents thought access for swimming was adequate at all sites except the Hammond Marina. Access for fishing is adequate at all sites except at Indiana Dunes National Lakeshore West Beach, and access for boating is adequate at all sites.

Dickey was surprised the survey results suggested the amount of lakefront access was adequate. She suggested the differing opinions between the focus groups and the users who were surveyed regarding the amount of access to the shoreline might be a marketing problem. "If a potential user doesn't know where an access site is located, it essentially doesn't exist." She said an important purpose of the new recreation guide is to help alleviate this concern. "Marketing the Lake Michigan shoreline, however, needs to be done throughout the state."

To obtain a color copy of the recreation guidebook titled, *Recreational*

Access to Lake Michigan, or to find out more about the additional recreation sites included in the inventory, contact Chris Baas in the Division of Outdoor Recreation at 317-232-4070.

Whihala Beach-Recent Improvement to Recreational Shoreline Access

In 1981, the Lake County Parks and Recreation Department opened what is now the east end of Whihala Beach. Two years ago the facility was significantly expanded, both in terms of area and amenities. According to Property Manager, Tim Janowski, the Parks and Recreation Department applied a "\$3 million bond issue to add undeveloped urban land" along the Hammond shoreline. Improvements in 1996 included new parking facilities, a bath house, a fishing access pier, and a bike trail connecting the east and the west ends of the expanded facility.

At the request of the Parks Department, the Indiana Natural Resources Commission earlier this year adopted "no-boat" zones for beaches along the west and east end of the facility. These zones help assure separation from boating activities for those bathers who desire it. The zones become legally effective when buoyed by the Parks Department this summer. A "boat-in" zone also provides a mooring area and boater access to another 1,360 feet of the park's shoreline

Today, Whihala Beach includes nearly one mile of public shoreline. Lifeguards are provided for swimming beaches. There is a full concession stand, restroom facilities at both the east and west ends, a shower, a public access fishing pier on the west end, and a boat launch on the east end. The parking fee for beach patrons between Memorial Day and Labor is \$2 for Lake County residents and \$5 for nonresidents. Seasons passes are also available for parking. A season pass to the boat launch for Lake County residents is \$50 and for nonresidents \$70. Daily passes are available for \$4 to county residents and \$6 to nonresidents.

Janowski said future efforts will restore natural elements to the beach. Included will be the reintroduction of dunes flora such as merrom grass.

Janowski described two entrances to Whihala Beach. West Entrance: To enter on the west end, follow Indianapolis Boulevard to Empress Drive, turn left and “just follow Empress Drive straight in.” East Entrance: To enter on the east end, follow Indianapolis Blvd. to Schrage Avenue, turn right and continue through the stop light (where Schrage Avenue becomes Ohio Avenue). On Ohio Avenue “you wind around until 117th Street where you turn right, then cross the railroad tracks;” the East Entrance is on the left-hand side.

For more information about Whihala Beach, call (219) 659-4015.



The Lake Michigan Coastal Coordination Program is an effort by the State of Indiana to improve communications and cooperation among the agencies who participate in activities in the Lake Michigan coastal region. See <http://www.dnr.state.in.us/lakemich/index.htm>

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Indiana Shorelines for Coastal Coordination is a quarterly publication of the Lake Michigan Coastal Coordination Program. Please direct questions, comments, or ideas for articles to: Jennifer Kane, (317) 232-0156; jKane@dnr.state.in.us



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